

Applicant: James A. Proctor, Jr.
Application No.: 10/767,843

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for receiving controlling timing of a reverse link signals signal from a plurality of subscriber units unit comprising:
 - a receiver that receives a first plurality of reverse link signals and a second plurality of reverse link signals in a time interval, wherein each said reverse link signal of the first plurality of reverse link signals is derived from at least includes a common pseudo noise (PN) sequence code and unique orthogonal sequence code and each said reverse link signal of the second plurality of reverse link signals is derived from a unique pseudo noise (PN) sequence;
 - ~~a correlator coupled to the receiver that associates a metric with each of the received reverse link signals;~~
 - ~~a selector coupled to the correlator that selects the received reverse link signal associated with a best metric; and~~
 - ~~a timing controller coupled to the selector that determines a gross timing offset of the selected associated with at least one reverse link signal to align a~~

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~~timing of the at least one selected reverse link signal with reverse link signals from other subscriber units using the common code with a common phase.~~

2. (Currently Amended) The apparatus according to Claim 1 wherein the timing controller determines a fine timing offset and causes a fine phase adjustment of the common pseudo noise (PN) sequence code of the ~~selected~~ reverse link signal.

3. (Original) The apparatus according to Claim 1 wherein the timing controller provides the gross timing offsets to the subscriber unit in the form of a timing command.

4. (Original) The apparatus according to Claim 1 wherein the timing controller provides the gross timing offsets to the subscriber unit in the form of a timing report.

5. (Cancelled)

6. (Cancelled)

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7. (Cancelled)

8. (Original) The apparatus according to Claim 1 further including a power controller that determines a power level of the aligned reverse link signal and provides feedback of the power level to the subscriber unit.

9. (Original) The apparatus according to Claim 8 wherein the power controller provides the power level to the subscriber unit in the form of a power command.

10. (Original) The apparatus according to Claim 8 wherein the power controller provides the power level to the subscriber unit in the form of a power report.

11. (Currently Amended) A method of receiving reverse link signals from a plurality of controlling timing of a signal from a subscriber units unit comprising:
receiving a first and a second plurality of reverse link signals in a time interval, wherein each reverse link signal of the first plurality of reverse link signals is derived from includes a common pseudo noise sequence orthogonal long code and a unique orthogonal sequence code and each reverse link signal of the

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second plurality of reverse link signals is derived from a unique pseudo noise sequence;

~~associating a metric with each of the received reverse link signals;~~
~~selecting the received reverse link signal associated with a best metric; and~~
determining a gross timing offset associated with at least one of the selected
reverse link signal to align the at least one selected reverse link signal with reverse
link signals from other subscriber units ~~using the common code with a common~~
~~phase.~~

12. (Cancelled)

13. (Original) The method according to Claim 11 further including
providing gross timing offsets to the subscriber unit in the form of a timing
command.

14. (Original) The method according to Claim 11 further including
providing the gross timing offsets to the subscriber unit in the form of a timing
report.

15. (Cancelled)

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16. (Cancelled)

17. (Cancelled)

18. (Original) The method according to Claim 11 further including determining a power level of the aligned reverse link signal and providing feedback of the power level to the subscriber unit.

19. (Original) The method according to Claim 18 wherein providing the power level to send to the subscriber unit includes transmitting the power level feedback to the subscriber unit in the form of a power command.

20. (Original) The method according to Claim 18 wherein providing the power level to send to the subscriber unit includes transmitting the power level feedback to the subscriber unit in the form of a power report.

21. Cancelled.

22. (Withdrawn) A subscriber unit comprising:

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circuitry configured to communicate in a first and a second mode; the circuitry configured in the first mode to communicate with a base station using a first CDMA code assigned to the subscriber unit and not to other subscriber units; and

the circuitry configured in the second mode to communicate with the base station using a second CDMA code used by a first plurality of subscriber units in a first time slot and the first plurality of subscriber units communicate in separate time slots; wherein the second mode is associated with high speed packet communication.

23. (Withdrawn) The subscriber unit of claim 22 wherein the first CDMA code includes an orthogonal code and a PN code.

24. (Withdrawn) The subscriber unit of claim 23 wherein the orthogonal code is a Walsh code.

25. (Withdrawn) The subscriber unit of claim 22 wherein the second CDMA code includes an orthogonal code and a PN code.

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26. (Withdrawn) The subscriber unit of claim 24 wherein the orthogonal code is a Walsh code.

27. (Withdrawn) The subscriber unit of claim 22 wherein power control information is communicated between the base station and the subscriber unit using the second code.

28. (Withdrawn) The subscriber unit of claim 22 wherein the communication using the first and second codes is on a reverse link.

29. (Withdrawn) A method comprising:
communicating in a first mode, by a subscriber unit; wherein in the first mode, the subscriber unit communicates with a base station using a first CDMA code assigned to the subscriber unit and not to other subscriber units; and
communicating in a second mode, by a subscriber unit; wherein in the second mode, the subscriber unit communicates with the base station using a second CDMA code in a first time slot used by a first plurality of subscriber units and the first plurality of subscriber units communicate in separate time slots; wherein the second mode is associated with high speed packet communication.

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30. (Withdrawn) The method of claim 29 wherein the first CDMA code includes an orthogonal code and a PN code.

31. (Withdrawn) The method of claim 30 wherein the orthogonal code is a Walsh code.

32. (Withdrawn) The method of claim 29 wherein the second CDMA code includes an orthogonal code and a PN code.

33. (Withdrawn) The method of claim 32 wherein the orthogonal code is a Walsh code.

34. (Withdrawn) The method of claim 29 wherein power control information is communicated between the base station and the subscriber unit using the second code.

35. (Withdrawn) A base station comprising:
circuitry configured to communicate to a first and a second plurality of subscriber units;
the circuitry configured to communicate with each of the first plurality of

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subscriber units using a respective first CDMA code different from CDMA codes used by other subscriber units of the first plurality; and

the circuitry configured to communicate with the second plurality of subscriber units using a second CDMA code shared by the second plurality of subscriber units; wherein each of the second plurality of subscriber units is communicated with in a different time slot; wherein the second plurality of subscriber unit are communicating packet data for high speed operation.

36. (Withdrawn) The base station of claim 35 wherein the respective first CDMA codes include an orthogonal code and a PN code.

37. (Withdrawn) The base station of claim 36 wherein the orthogonal code is a Walsh code.

38. (Withdrawn) The base station of claim 35 wherein the second CDMA code includes an orthogonal code and a PN code.

39. (Withdrawn) The base station of claim 38 wherein the orthogonal code is a Walsh code.

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40. (Withdrawn) The base station of claim 35 wherein power control information is communicated between the base station and the subscriber units using the second code.

41. (Withdrawn) The base station of claim 35 wherein the communication using the first and second codes is on a reverse link.

42. (New) A subscriber unit comprising:
at least one processor configured to receive a timing offset,
wherein the at least one processor is further configured to transmit a reverse link signal derived from a common pseudo noise sequence and a unique orthogonal sequence;
wherein a timing of the reverse link signal is adjusted in response to the received timing offset; and
wherein the common pseudo noise sequence and difference unique orthogonal sequences are used by a first plurality of other subscriber units in a same time interval for reverse link transmissions and unique different pseudo noise sequences are used by a second plurality of other subscriber units in the same time interval for reverse link transmissions.

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43. (New) The subscriber unit of claim 42, wherein the at least one processor is configured to transmit a reverse link signal derived from the common pseudo noise sequence and the unique orthogonal sequence and is also configured to transmit a reverse link signal derived from a unique pseudo noise sequence.